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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/492,697	01/27/2000	Bernard Dujon	3495.0111-11	1254
22852	7590	10/06/2003	EXAMINER	
FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER LLP 1300 I STREET, NW WASHINGTON, DC 20005			KAUSHAL, SUMESH	
			ART UNIT	PAPER NUMBER
			1636	
			DATE MAILED: 10/06/2003	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/492,697

Applicant(s)

DUJON ET AL.

Examiner

Sumesh Kaushal Ph.D.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 61-79 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 61, 67 and 74-79 is/are rejected.
- 7) ☒ Claim(s) 62-66 and 68-73 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

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DETAILED ACTION

Applicant's response filed on 07/10/03 has been acknowledged.

Claims 61-79 are pending.

*Applicants are advised to follow Amendment Practice under revised 37 CFR §1.121(<http://www.uspto.gov/web/offices/pac/dapp/opla/preognotice/revamdtprac.htm>) Each amendment document that includes a change to an existing claim, or submission of a new claim, **must include a complete listing of all claims** in the application. After each claim number, the status must be indicated in a parenthetical expression, and the text of each claim under examination (with markings to show current changes) must be presented. The listing will serve to replace all prior versions of the claims in the application.*

Applicant's arguments with respect to claims 61-79 have been considered but are moot in view of the new ground(s) of rejection below.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 61, 67 and 74-79 are rejected under 35 U.S.C. 102(b) as being anticipated by Ohashi et al (PNAS 89:11332-36, 1992).

The invention as claimed is drawn to a recombinant mammalian chromosome comprising an I-PpoI endonuclease site. The claims are further drawn to a recombinant mouse stem cell comprising a recombinant chromosome. The specification teaches that TGA~~CT~~CTCTTAAGGTAGCCAAATGCC encodes I-PpoI site (see spec. fig-6).

Ohashi teaches genetically engineered murine hematopoietic stem cells, wherein the cells has been transduced using a retroviral vector encoding the glucocerebrosidase gene (page 11332 abstract). Furthermore, Hassouna et al (Nucleic Acid Res. 12(8):3563-3583, 1984) teaches that mouse genome comprises 28S gene,

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which inherently encodes nucleotide sequences comprising TGACTCTCTTAAGGTAGCCAAATGCC at location 3419-3444 in the mouse 28S gene (*see attached Blast2 sequences results*).

Since the retroviral vectors deliver the gene of interest via a random integration, it is certain that such an integration event would occur in a chromosome that encodes the I-PpoI site, and since the mouse genome comprises only 21 chromosomes (see <http://www.ncbi.nlm.nih.gov/Taxonomy>). Thus given the broadest reasonable interpretation the genetically engineered hematopoietic stem cells as taught by Ohashi would certainly comprises a recombinant chromosome which inherently encodes the I-PpoI site designated by nucleic acid sequences of TGACTCTCTTAAGGTAGCCAAATGCC.

The cited art clearly anticipate the invention as claimed because the composition and functions as claimed are presumed inherent. The composition is physically the same it must have the same properties. "Products of identical chemical composition can not have mutually exclusive properties." A chemical composition and its properties are inseparable. Therefore, if the prior art teaches the identical chemical structure, the properties applicant discloses and/or claims are necessarily present. In re Spada, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990) see MPEP § 2112.02.

Conclusion

No claims are allowed.

Claims 61, 67 and 74-79 are rejected.

Claims 62-66 and 68-73 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten independent form including all of the limitation of the base claim and any intervening claims

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sumesh Kaushal Ph.D. whose telephone number is

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703-305-6838. The examiner can normally be reached on Mon-Fri. from 9AM-5PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Irem Yucel Ph.D. can be reached on 703-305-1998. The fax phone numbers for the organization where this application or proceeding is assigned is 703-872-9306. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0196.

S. Kaushal

Patent examiner



JEFFREY FREDMAN
PRIMARY EXAMINER